

## ATTACHMENT "B"

### CLEAN COPY OF AMENDED CLAIMS

#### WHAT IS CLAIMED IS:

- 1           1.       A process for increasing the production of camptothecins by a plant  
2       comprising the step of:  
3                   physically, biologically, or ecologically controlling the amount of  
4       hormones produced by the plant.
- 1           2.       The process as defined in Claim 1 wherein said physical, biological, or  
2       ecological control of the amount of hormones produced by the plant includes reducing  
3       the amount of auxin produced by the plant.
- 1           3.       The process as defined in Claim 2 wherein the amount of said auxin  
2       produced by the plant is reduced by removing those sites of the plant which produce said  
3       auxin.
- 1           4.       The process as defined in Claim 3 wherein the removal of said sites of the  
2       plant which produce said auxin is accomplished by first pruning during a first year of  
3       plant growth and then periodically harvesting young vegetative tissues from the plant  
4       during a second and subsequent years of plant growth.
- 1           5.       The process as defined in Claim 4 wherein said pruning during said first  
2       year of plant growth further includes stem pruning four times during said first year of  
3       plant growth.

1                   6.     The process as defined in Claim 5 wherein said stem pruning  
2 includes:  
3                   a first pruning after the last frost,  
4                   a second pruning about 12 to 20 weeks after said first pruning,  
5                   a third pruning about 8 to 12 weeks after said second pruning,  
6                   a fourth pruning after the last frost at the end of said first year of plant  
7 growth.

1                   7.     The process as defined in Claim 6 further including root pruning during  
2 said second year of plant growth, said root pruning further including:  
3                   a first pruning of about 1/3 of the roots;  
4                   a second pruning of about 1/3 of the roots about five weeks after said first  
5 pruning of about 1/3 of the roots;  
6                   a third pruning of about 1/3 of the roots about five weeks after said second  
7 pruning of about 1/3 of the roots.

1                   8.     The process as defined in Claim 6 wherein:  
2                   said first pruning includes heading back stems to less than about 50 cm.  
3 above the ground;  
4                   said second pruning includes heading back stems with a crotch angle less  
5 than about 30° from the main stem of the plant to about 50 cm. above the ground,  
6 heading back those stems between about 30° and about 70° from the main stem to the  
7 third bud from the stem tip;

8                   said third pruning includes heading back stems with angles less than about  
9   30° from the main stem to about 50 cm. above the ground, heading back the stems  
10 between about 30° and about 70° from the main stem to the third bud from the stem tip;  
11                   said fourth pruning includes heading back stems with angles between  
12 about 30° and about 70° from the main stem to the third bud from the stem tip.

1           9.       The process as defined in Claim 7 further including the step of pinching  
2 off about 10% to about 30% of the leaf area at the tip of the leaf of about 20% to about  
3 60% of all the leaves on each stem at the same time as each of said root prunings during  
4 said first or subsequent years of plant growth.

1           10.      The process as defined in Claim 4 wherein said periodic harvesting of  
2 young vegetative tissues is accomplished at about two to four week intervals during said  
3 second and subsequent years of plant growth.

1           11.      The process as defined in Claim 10 wherein said periodic harvesting of  
2 young vegetative tissues is accomplished about 10 to 12 times per year of plant growth.

1           12.      The process as defined in Claim 4 wherein said young vegetative tissues  
2 are between about 3 to about 20 days old.

1           13.      The process as defined in Claim 12 wherein about 10% to about 30% of  
2 the leaf area at the tip of the leaf of about 20% to about 60% of all the leaves on each

3 stem is pinched off at least about 6 to about 8 days before each harvest of young  
4 vegetative tissues.

1 14. A process for increasing the production of camptothecins by a plant  
2 comprising the step of:

3 increasing the formation of camptothecins-bearing trichomes on young  
4 vegetative tissues of the plant by physically, biologically, or ecologically controlling the  
5 amount of hormones produced by the plant.

1 15. The process as defined in Claim 14 wherein said physical, biological, or  
2 ecological control of the amount of hormones produced by the plant includes reducing  
3 the amount of auxin produced by the plant.

1 16. The process as defined in Claim 15 wherein the amount of said auxin  
2 produced by the plant is reduced by removing those sites of the plant which produce said  
3 auxin.

1 17. The process as defined in Claim 16 wherein the removal of said sites of  
2 the plant which produce said auxin is accomplished by first pruning during a first year of  
3 plant growth and then periodically harvesting young vegetative tissues from the plant  
4 during a second and subsequent years of plant growth.

1           18.    The process as defined in Claim 17 wherein said pruning during said first  
2   year of plant growth further includes stem pruning four times during said first year of  
3   plant growth.

1           19.    The process as defined in Claim 18 wherein said stem pruning includes:  
2                   a first pruning after the last frost,  
3                   a second pruning about 12 to 20 weeks after said first pruning,  
4                   a third pruning about 8 to 12 weeks after said second pruning,  
5                   a fourth pruning after the last frost at the end of said first year of plant  
6   growth.

1           20.    The process as defined in Claim 19 further including root pruning during  
2   said second year of plant growth, said root pruning further including:  
3                   a first pruning of about 1/3 of the roots;  
4                   a second pruning of about 1/3 of the roots about five weeks after said first  
5   pruning of about 1/3 of the roots;  
6                   a third pruning of about 1/3 of the roots about five weeks after said second  
7   pruning of about 1/3 of the roots.

1           21.    The process as defined in claim 19 wherein:  
2                   said first pruning includes heading back stems to less than about 50 cm.  
3   above the ground;

4                   said second pruning includes heading back stems with a crotch angle less  
5   than 30° from the main stem of the plant to about 50 cm. above the ground, heading back  
6   those stems between about 30° and about 70° from the main stem to the third bud from  
7   the stem tip;

8                   said third pruning includes heading back stems with angles less than 30°  
9   from the main stem to about 50 cm. above the ground, heading back the stems between  
10   about 30° and 70° from the main stem to the third bud from the stem tip;

11                  said fourth pruning includes heading back stems with angles between  
12   about 30° and about 70° from the main stem to the third bud from the stem tip.

1           22.    The process as defined in Claim 20 further including the step of pinching  
2   off about 10% to about 30% of the leaf area at the tip of the leaf of about 20% to about  
3   60% of all the leaves on each stem at the same time as each of said root prunings during  
4   said first or subsequent years of plant growth.

1           23.    The process as defined in Claim 17 wherein said periodic harvesting of  
2   young vegetative tissues is accomplished at about two to four week intervals during said  
3   second and subsequent years of plant growth.

1           24.    The process as defined in Claim 23 wherein said periodic harvesting of  
2   young vegetative tissues is accomplished about 10 to 12 times per year of plant growth.

1           25.     The process as defined in Claim 17 wherein said young vegetative tissues  
2     are between about 3 to about 20 days old.

1           26.     The process as defined in Claim 25 wherein about 10% to about 30% of  
2     the leaf area at the tip of the leaf of about 20% to about 60% of all the leaves on each  
3     stem is pinched off at least about 6 to about 8 days before each harvest of said young  
4     vegetative tissues.

1           27.     A process for increasing the production of camptothecins by a plant  
2     comprising the steps of:  
3                 increasing the amount of young vegetative tissues produced by the plant;  
4                 increasing the formation of camptothecins-bearing trichomes on said  
5     increased amount of said young vegetative tissues by physically, biologically, or  
6     ecologically controlling the amount of hormones produced by the plant.

1           28.     The process as defined in Claim 27 wherein said physical, biological, or  
2     ecological control of the amount of hormones produced by the plant includes reducing  
3     the amount of auxin produced by the plant.

1           29.     The process as defined in Claim 28 wherein the amount of said auxin  
2     produced by the plant is reduced by removing those sites of the plant which produce said  
3     auxin.

1           30.    The process as defined in Claim 29 wherein both the removal of those  
2   sites of the plant which produce auxin and increasing the amount of young vegetative  
3   tissues produced by the plant is accomplished by first pruning during a first year of plant  
4   growth and then periodically harvesting young vegetative tissues from the plant during a  
5   second and subsequent years of plant growth.

1           31.    The process as defined in Claim 30 wherein said pruning during said first  
2   year of plant growth further includes stem pruning four times during said first year of  
3   plant growth.

1           32.    The process as defined in Claim 31 wherein said stem pruning includes:  
2                   a first pruning after the last frost,  
3                   a second pruning about 12 to 20 weeks after said first pruning,  
4                   a third pruning about 8 to 12 weeks after said second pruning,  
5                   a fourth pruning after the last frost at the end of said first year of plant  
6   growth.

1           33.    The process as defined in Claim 32 further including root pruning during  
2   said second year of plant growth, said root pruning further including:  
3                   a first pruning of about 1/3 of the roots;  
4                   a second pruning of about 1/3 of the roots about five weeks after said first  
5   pruning of about 1/3 of the roots;



6                   a third pruning of about 1/3 of the roots about five weeks after said second  
7   pruning of about 1/3 of the roots.

1           34.    The process as defined in claim 32 wherein:

2                   said first pruning includes heading back stems to less than about 50 cm.  
3   above the ground;

4                   said second pruning includes heading back stems with a crotch angle less  
5   than 30° from the main stem of the plant to about 50 cm. above the ground, heading back  
6   those stems between about 30° and about 70° from the main stem to the third bud from  
7   the stem tip;

8                   said third pruning includes heading back stems with angles less than about  
9   30° from the main stem to about 50 cm. above the ground, heading back the stems  
10   between about 30° and about 70° from the main stem to the third bud from the stem tip;

11                  said fourth pruning includes heading back stems with angles between  
12   about 30° and about 70° from the main stem to the third bud from the stem tip.

1           35.    The process as defined in Claim 33 further including the step of pinching  
2   off about 10% to about 30% of the leaf area at the tip of the leaf of about 20% to about  
3   60% of all the leaves on each stem at the same time as each of said root prunings during  
4   said first or subsequent years of plant growth.

1           36.    The process as defined in Claim 30 wherein said periodic harvesting of  
2   said young vegetative tissues is accomplished at about two to four week intervals during  
3   said second and subsequent years of plant growth.

1           37.    The process as defined in Claim 36 wherein said periodic harvesting of  
2   said young vegetative tissues is accomplished about 10 to 12 times per year of plant  
3   growth.

1           38.    The process as defined in Claim 30 wherein said young vegetative tissues  
2   are between about 3 to about 20 days old.

1           39.    The process as defined in Claim 38 wherein about 10% to about 30% of  
2   the leaf area at the tip of the leaf of about 20% to about 60% of all the leaves on each  
3   stem is pinched off at least about 6 to about 8 days before each harvest of said young  
4   vegetative tissues.

1           40.    A process for increasing the amount of camptothecins-bearing trichomes  
2   harvested from a plant comprising the steps of:  
3                increasing the amount of young vegetative tissues produced by the plant;  
4                increasing the formation of camptothecins-bearing trichomes on said  
5   increased amount of young vegetative tissues;  
6                reducing the amount of camptothecins-bearing trichomes falling away  
7   from said young vegetative tissues after the harvesting of the young vegetative tissues.

1           41.    The process as defined in claim 40 wherein said amount of  
2   camptothecins-bearing trichomes falling away from said young vegetative tissues is  
3   reduced by processing said young vegetative tissues within about two days after  
4   harvesting.

1           42.    The process as defined in claim 40 wherein the amount of said  
2   camptothecins-bearing trichomes falling away from said young vegetative tissues is  
3   reduced by extracting freshly harvested matters said young vegetative tissues shortly after  
4   harvesting.

1           43.    A process for increasing the amount of camptothecins harvested from a  
2   plant which includes camptothecins-bearing trichomes comprising the steps of:  
3                    increasing the amount of young vegetative tissues produced by the plant;  
4                    increasing the formation of camptothecins-bearing trichomes on said  
5   increased amount of young vegetative tissues;  
6                    reducing the number of camptothecins-bearing trichomes falling away  
7   from the young vegetative tissues after the harvesting of the young vegetative tissues;  
8                    breaking said trichome walls to release the camptothecins with the  
9   camptothecins-bearing trichomes.

1           44.    The process as defined in claim 43 wherein said trichome walls are broken  
2   using ultrasound.

1           45.    The process as defined in claim 43 wherein said trichome walls are broken  
2    using a homogenizer.

1           46.    The process as defined in claim 43 wherein said trichome walls are broken  
2    by a physical impact on said trichome walls.

1           47.    The process as defined in claim 43 wherein said camptothecins are  
2    collected in a solvent.